y= imread('aravind1.tif');

I=im2double(y);

z=1;

str='dfigure';

[snr1, snr2] = psnr(y,y);

fprintf('\n The SNR of blurred image value is %0.4f', snr2);

figure

imshow(I)

title('blurredimage');

xx=1; big1=-1;big5=-1;big2=-1;big3=-1;big4=-1;

for l=25.0:-5.3:0.0

for t=25.0:-5.2:0.0

PSF = fspecial('motion',l,t);

INITPSF = ones(size(PSF));

[J, P] = deconvblind(I,PSF,3);

figure

imshow(J)

title([str ':' num2str(z)])

[snr4, snr3] = psnr(I,J);

snr3\_arr(xx)=snr3;

xx=xx+1;

z=z+1;

end

end

[val1, ind1] = max(snr3\_arr(:));

if ind1 > big1

new\_img1 = J;

big1=ind1;

end

figure

imshow(J);

title('blind');

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%wnier

yy=1;

for l=18.0:-6.3:0.0

for t=15.0:-6.2:0.0

PSF = fspecial('motion',l,t);

INITPSF = ones(size(PSF));

J = deconvwnr(I,INITPSF,0);

figure,imshow(J)

title([str ':' num2str(z)])

[snr6,snr5] = psnr(I,J);

snr5\_arr(yy)=snr5;

yy=yy+1;

z=z+1;

end

end

[val2, ind2] = max(snr5\_arr(:));

if ind2 > big2

new\_img2 = J;

big2=ind2;

end

figure

imshow(J);

title('wnr');

%%%%%%%%%%%%%%%%%%%%%%%reg

zz=1;

for l=18.0:-6.3:0.0

for t=15.0:-6.2:0.0

PSF = fspecial('motion',l,t);

INITPSF = ones(size(PSF));

[J, P] = deconvreg(I,INITPSF,2);

figure

imshow(J)

title([str ':' num2str(z)])

[snr8, snr7] = psnr(I,J);

snr7\_arr(zz)=snr7;

zz=zz+1;

z=z+1;

end

end

[val3, ind3] = max(snr7\_arr(:));

if ind3 > big3

new\_img3 = J;

big3=ind3;

end

figure

imshow(J);

title('reg');

%%%%%%%%%%%%%%%%%%%%%%%%%%%%lucy

aa=1;

for l=18.0:-6.3:0.0

for t=15.0:-6.2:0.0

PSF = fspecial('motion',l,t);

INITPSF = ones(size(PSF));

J = deconvlucy(I,INITPSF,100);

figure

imshow(J)

%title([str ':' num2str(z)])

[snr10, snr9] = psnr(I,J);

snr9\_arr(aa)=snr9;

aa=aa+1;

z=z+1;

end

end

[val4, ind4] = max(snr9\_arr(:));

if ind4 > big4

new\_img4 = J;

big4=ind4;

end

figure

imshow(J);

title('lucy');

dz=[val1 ,val2 , val3 , val4];

[rrr, sss] = max(dz(:));

if rrr == val1

new\_img5 = new\_img1;

figure, imshow(new\_img5);

title(['dfigure:' num2str(ind1), 'snr' [num2str(rrr)]])

elseif rrr==val2

new\_imag5=new\_img2;

figure, imshow(new\_img5);

title(['dfigure:' num2str(ind2), 'snr' [num2str(rrr)]])

elseif rrr==val3

new\_img5=new\_img3;

figure, imshow(new\_img5);

title(['dfigure:' num2str(ind3), 'snr' [num2str(rrr)]])

else

new\_img5=new\_img4;

figure, imshow(new\_img5);

title(['dfigure:' num2str(ind4), 'snr' [num2str(rrr)]])

end

/////

I = im2double((imread('download.jpg')));

len=20;

theta=25;

psf = fspecial('motion',len,theta);

blurred = imfilter(I,psf,'conv','circular');

figure,imshow(blurred);

title('blurred image');

recovered=deconvblind(blurred,psf,12);

figure,imshow(recovered);

title('deconvoblind');

X= deconvreg(blurred,psf,2);

figure,imshow(X);

title('deconvreg');

J = deconvlucy(blurred,psf,100);

figure,imshow(J);

title('deconvlucy');

r = deconvwnr(blurred,psf,0);

figure,imshow(r);

title('dewnr');